StreetTrek Explorer™
User Manual

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MOTOROLA

PROFESSIONAL RADIO

APPLICATION
provider

MAKING SOLUTIONS WORK FOR YOU

Welcome to StreetTrek™ Explorer
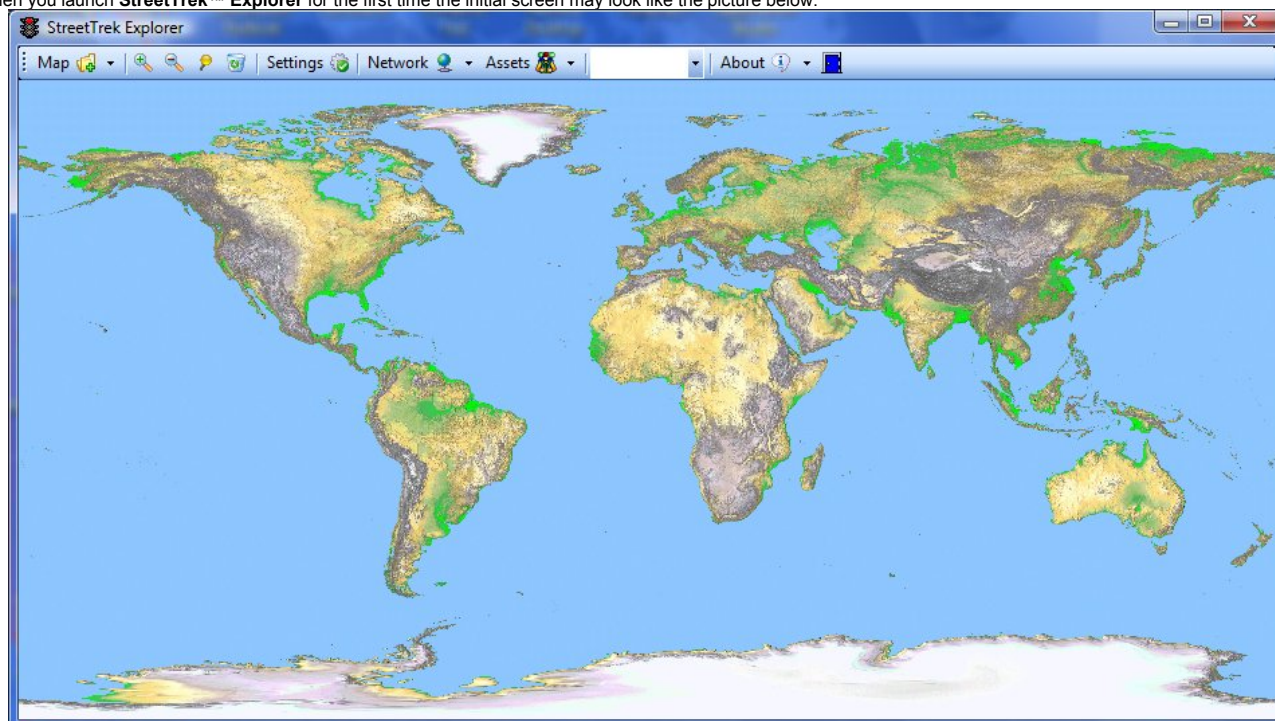
Welcome to **StreetTrek™** Assets Tracking. This help covers the use of **StreetTrek™ Explorer** Assets Tracking Software. For the latest news about **StreetTrek™** visit StreetTrek Web Site .
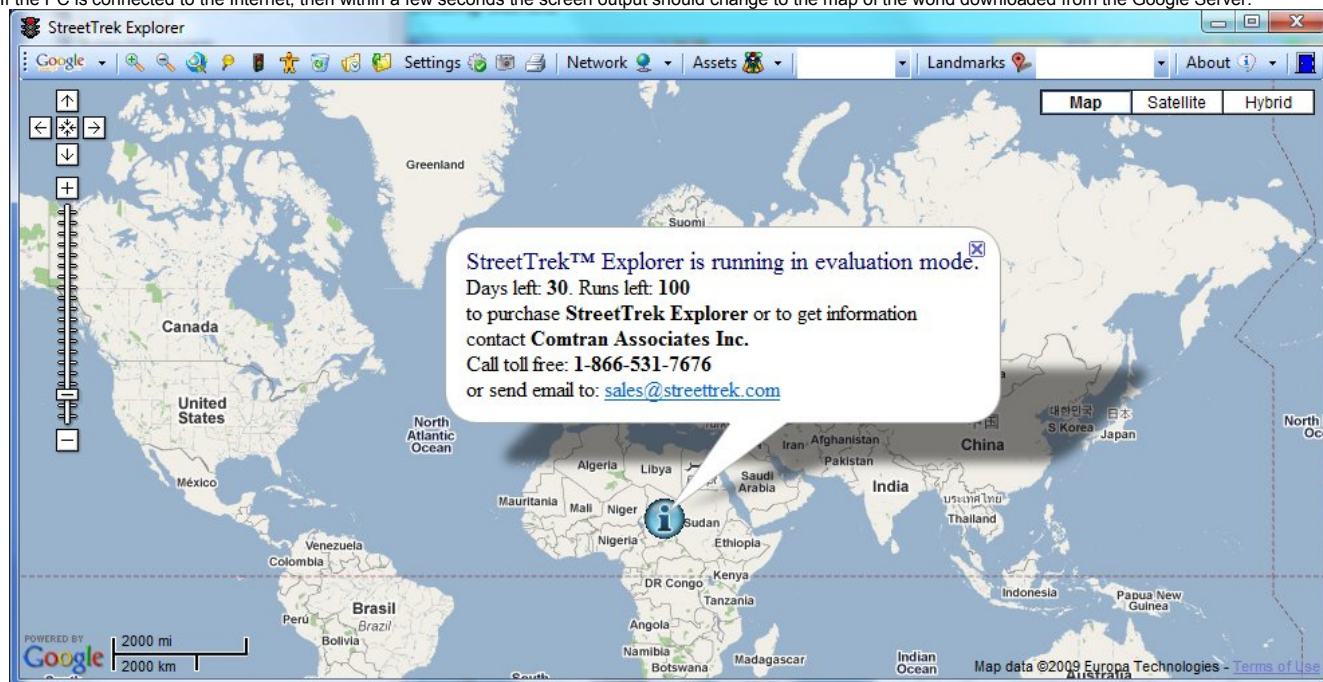
Getting started

When you launch **StreetTrek™ Explorer** for the first time the initial screen may look like the picture below:

If the PC is connected to the Internet, then within a few seconds the screen output should change to the map of the world downloaded from the Google Server.

You may also notice an **Evaluation Mode** balloon. **Evaluation Mode** is fully functional for 30 days or 100 runs from installation. To close the **Evaluation Mode** balloon click the **'x'** button on the balloon or click on the map outside the balloon. The **Evaluation Mode** balloon will be shown at the program start until you register **StreetTrek™ Explorer**.

By default **StreetTrek™ Explorer** will load a **Google Map** over an existing **Internet** connection. Detailed description of **Google Maps** navigation is beyond the scope of this document. **Google Maps** displayed by **StreetTrek™ Explorer** are navigated the same way as in a general purpose Internet Browser like **Internet Explorer**, **Mozilla FireFox**, or **Google Chrome**. You can zoom into a particular area via left mouse button double-click, zoom out via right mouse double-click, or use the **Navigation Control** in the upper left part of the map. In addition **StreetTrek™ Explorer** offers zoom in 🔍 and zoom out 🔍 buttons on the toolbar. **StreetTrek™ Explorer** will 'remember' coordinates and zoom level you selected and will use the same settings for the next program run.

If you are tracking assets, you probably expect those within current map boundaries to be plotted onto the map. To make it so you need to select where your data comes

from. **StreetTrek™ Explorer** can obtain data over the **Internet** or **Local Network** from **StreetTrek™ Server** or directly from hardware like **Motorola MOTOTRBO™** series radio. Instructions specific to setting up **StreetTrek™ Explorer** to get data directly from **MOTOTRBO™** hardware are provided in a separate chapter **MOTOTRBO**.

The instructions below are for setting up **StreetTrek™ Explorer** to get data over a **Local Network** or **Internet**. To start getting data from **StreetTrek™ Server** you need to run **Network Setup**. Click on the **Network** toolbar button [Network]. You will be presented with a **Network Setup** dialog like the one shown below

Fill in Server IP Address, TCP Port number, User Name and Password. If you don't know these, contact your **StreetTrek™** dealer. The connection name is a friendly name you assign. If you intend on having more than one server connection it makes sense choosing names you can relate to. To finish **Network Setup** click the **Save** button. If the login parameters you entered are correct and the PC is connected to the Internet, the **Network Connection Setup** form will close and **StreetTrek™ Explorer** will be connected to **StreetTrek™ Server**. **StreetTrek™ Explorer** connection status is indicated by the green traffic light icon in the upper left corner of the **StreetTrek™ Explorer** window. You may observe this icon changing to when **StreetTrek™ Explorer** is getting and processing Server data. At this point you should get icons plotted onto the map. Congratulations! You got **StreetTrek™** up and running. The chapters to follow show how to customize **StreetTrek™ Explorer** to your specific needs, use of advanced features like reports and telemetry, and how to get data from a **local** source like Motorola **MOTOTRBO™** radio.

Note:
MOTOTRBO™ is a trademark of Motorola, Inc.

### System Requirements   Previous Top Next

StreetTrek™ Explorer requires a PC with Windows XP or later operating system. 1GB of RAM and a high resolution video card are recommended. Broadband **Internet Connection** is required for using **StreetTrek™ Explorer** with **Google Maps**.

Upgrading StreetTrek   Previous Top Next

StreetTrek™ Explorer can be upgraded over the Internet from StreetTrek web site. The availability of an upgrade can be verified by clicking on the arrow portion of the **About** [About] toolbar button, which will pull down a sub-menu
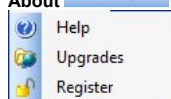
If the PC running **StreetTrek™ Explorer** is connected to the **Internet**, selecting the **Upgrades** menu option should produce an **Upgrade Form** like the one shown below
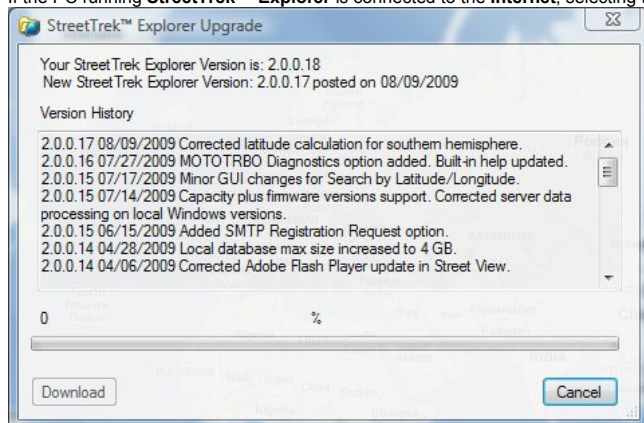
The text on the **Upgrade Form** will inform about the latest available upgrade version. If the installed **StreetTrek™ Explorer** build is the same or earlier you will be able to download the upgrade by clicking the **Download** button. The list box labeled **Version History** contains a brief description of recent updates and should help you in making a decision whether you should download and install the upgrade.
The upgrade procedure involves several steps. You can cancel the upgrade procedure at every intermediate step. Once you click the **Download** button the upgrade file will be downloaded from the StreetTrek FTP site. The download progress will be indicated by a progress bar. The upgrade file is an archive file and once downloaded you will be prompted to install it. The text in the bottom left button will change from **Download** to **Install**. At this point you can proceed with the upgrade by clicking the **Install** button or terminated the upgrade by clicking the **Cancel** button**.** In either case the **Upgrade Form** will close. If you clicked the **Install** button **StreetTrek™ Explorer** will automatically close and in a few seconds you will be presented with a window looking like the one below.

This will be the last step of the upgrade procedure. Clicking the **Finish** button will overwrite the **StreetTrek™ Explorer** main executable.
If you want to preserve an option of reverting to the previous build, you should make a backup of the StreetTrekEx.exe in **StreetTrek™ Explorer** Program Folder prior to starting the **Upgrade Procedure**. In that case you could manually overwrite the new version of StreetTrekEx.exe with the saved file, which would revert **StreetTrek™ Explorer** back to the previous build.

Software Registration

StreetTrek™ Explorer requires registration on the PC where it is installed. Not registered **StreetTrek™ Explorer** will run in evaluation mode, which is fully functional, but will time out after 30 days or after 100 runs, whichever comes first. **Registration** is available for every purchased copy of **StreetTrek™ Explorer** for the maximum number of tracked assets (**Maximum Assets Tracked**) specified in the purchase order and will be valid for 1 year. Extending registration for subsequent years is available for a small fee to cover our annual expense in purchasing **Google Maps** services for use in commercial applications. The fee for the first year is included into the price of the software. To **register** your copy of **StreetTrek™ Explorer** click the arrow portion of the [About ⓘ ▾] toolbar button to pull down a sub-menu.
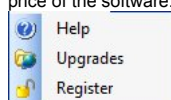
On this sub-menu select the **Register** option. This would pop up a **Registration Form** like the one shown below.

To register **StreetTrek™ Explorer** you need to enter a **Registration Key** that can be obtained over the phone or via email to info@streettrek.com or sales@streettrek.com . The **Registration Key** will be generated based on the **Product Code** and the **Maximum Assets Tracked** you submit. The **Product Code** is unique to the hardware configuration of the PC running **StreetTrek™ Explorer**. The **Maximum Assets Tracked** is entered by the user. The **Registration Key** will be generated based on both **Product Code** and **Maximum Assets Tracked** and will be accepted only on the PC with the matching **Product Code**. In order to better serve you in keeping track of your subscriptions for cases like adding extra assets, moving the application to another PC, recovering registrations after OS reinstall etc, we ask to submit additional information like Company Name, Contact Name and Phone Number, your **StreetTrek™ Explorer** Dealer Name. **StreetTrek™ Explorer** offers two ways of requesting **Registration Key** via email. The preferred way is to click the **Email** button, which would open a **Registration Request Form** like the one shown below.

Fill in the fields and click the **Submit** button. **StreetTrek™ Explorer** will generate and send an email to **info@streettrek.com** and also send a confirmation email to the email address you entered. This is the **preferred** way of requesting a registration code. It requires only Internet access. You do **not** need to have an **email account** on the PC running **StreetTrek™ Explorer**.

Alternatively, you can send an email to **info@streettrek.com** or **sales@streettrek.com** using your PC **Email Client**. To make this procedure simple **StreetTrek™ Explorer** generates a **Registration Request** text and copies it to the Windows Clipboard when the **Registration Form** is first shown or when the user changes the number of assets in the numeric up/down control. You can paste this request directly into the email body. Below is an example of the **Registration Request** generated by the above shown **Registration Form**:

E688-E479-8E4A-CAA6

Assets tracked: 25

Please enter additional information below the line:
——

Company Name:

Street Address:

City:

State:

Postal Code (ZIP):

Country:

Department:

Contact name:

Position/Title:

Phone Number:

Email:

Purchased from Dealer:

Contact at the Dealer:

Dealer Phone Number:

If the PC running **StreetTrek™ Explorer** has no **Email Client**, you can paste the request into Windows **WorPad** or **NotePad** and save to contents as a text file that can be transferred to a PC you can use for sending email. If the PC has Internet access you would be better off sending a request directly from **StreetTrek™ Explorer** by clicking the **Email** button and proceeding as described above.

Important:
Make sure that the **Maximum Assets Tracked** reflects the actual size of your fleet. **StreetTrek™ Explorer** will start producing pop-up balloons if the number of assets plotted onto the map exceeds the number of assets you have registered. If you underestimated the size of your fleet, or you need adding extra units, it can be arranged at any time between annual registrations. The fee will depend on the number of assets added and number of days remaining under the current registration.

For your information:
Under the terms of the agreement we signed with **Google Maps** we have an obligation to report the **Total Number of Assets** tracked using our software and the fee we pay to **Google** will be based on that number. We have **no legal obligation and no intent** to report to anybody which companies purchased our software or how many assets a particular company is tracking.

Getting Help

For information or assistance in using **StreetTrek™ Explorer** send email to **info@streettrek.com** or **support@streettrek.com** or call toll free **1-866-531-7676** and speak with a **StreetTrek™** representative.

Copyright

   StreetTrek™ Explorer is copyrighted software. Your purchase of **StreetTrek™ Explorer** entitles you installing the number of program copies specified in your purchase contract. You are not authorized distributing **StreetTrek™ Explorer**. Unregistered copy of **StreetTrek™ Explorer** will run in **Evaluation Mode** up to 30 days or 100 runs, whichever comes first. After that it has to be either **registered**, or **uninstalled**.

Main Map

By default **StreetTrek™ Explorer** loads maps from Google Server. Instead of loading Google maps, the program user can choose loading a locally installed raster map. The **World** raster map is installed during **StreetTrek™ Explorer** setup. To select a local raster map click on the arrow portion of the [Google ▼] toolbar button and select a submenu option marked by an open folder icon.
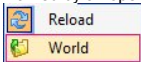
StreetTrek™ Explorer will load the raster map you selected and it will become the default for subsequent program runs. The left most toolbar button will change appearance to [Map ▼] indicating that **StreetTrek™ Explorer** has loaded a local raster map. Refer to the **Raster Maps** topic for instructions how to add and open raster maps.

To switch back to **Google Maps** click on the arrow portion of the [Map ▼] toolbar button and select **Open in Google Maps** from the submenu

Maps loaded from Google Servers are distinguished by Google trademark in the lower left map corner [POWERED BY Google] and the map provider copyright notice in the lower right [Map data ©2009 Tele Atlas - Terms of Use] part of the map. Google map can be switched between **Map View**, **Satellite View** and **Hybrid View** via a **Map Type** control in the upper right part of the map. Google Map view port can be changed by dragging the map in any direction with the left mouse button held down.

You can adjust **StreetTrek™ Explorer** main window size by dragging the borders. **StreetTrek™ Explorer** will store main window position and size and use these at the next program start.

Once **StreetTrek™ Explorer** starts getting GPS data your assets will be plotted onto the map according to their GPS coordinates. You can adjust map center and zoom level for the best viewing of your assets. When you move the mouse cursor over an asset you will be getting a balloon with additional information such as date/time, speed and direction (if any), address (if decoded). Moving the mouse cursor from the asset should close the balloon. Clicking an asset icon with the right mouse button would activate a context menu

You can use context menu options to **Edit** the asset name and icon, open a **Detail Map**, open a **Street View** (if available) or remove the asset from the map.
Clicking the asset with the left mouse button would produce a **Street View** balloon showing the ground level panorama of the area, if available.

You can enhance your maps by placing **Landmark Icons** marking any objects of your interest. Refer to **Adding Landmarks** topic for details.

StreetTrek™ Explorer offers address lookup through Google Address Search Services. For address search click the [🔍] toolbar button to open the **Find Address** form. For details on Address Search refer to the **Address Lookup** topic.

Google Maps offer a number of unique features, including **Traffic Overlay** and **Street View**.

Street View provides 360° horizontal and 290° vertical panoramic street level views and allows users to view parts of some regions of the world at ground level. **Street View** is not available for all areas. To look up which areas are covered by **Google Street View** or to explore this feature click on the [🚶] toolbar button. Roads and Streets where **Street View** is available will be highlighted by blue contour lines. For details how to use **Street View** refer to the **Street View** topic.

Traffic Overlay allows to display on the main map current traffic conditions. Traffic Overlay is enabled by clicking the [📍] toolbar button. Refer to the **Traffic Overlay** topic for details.

Toolbar

Most of the **StreetTrek™ Explorer** options are selectable via toolbar.

The exact appearance of the toolbar may vary depending on the options you select and the main program window size. To find out what action a particular button will trigger mover the mouse cursor over the button. The brief action description will be shown in a tooltip that will stay on screen for a few seconds. When you reduce the size of the main window to fit into smaller or low resolution display, **StreetTrek™ Explorer** may strip some button labels to keep the buttons from overflowing the toolbar. The toolbar appearance may change if you use **StreetTrek™ Explorer** with **Motorola MOTOTRBO™**. Refer to the **MOTOTRBO** help topic for details.

Changing Asset Name and Icon

StreetTrek™ Explorer assets are represented on the map by icons with labels bearing the asset name or alias. You can change the appearance of the icon and the name shown in the label. There two way of doing this. The most intuitive way is to **right-click** the **Asset Icon** with the mouse. This should bring up a context menu


Selecting the **Edit** option will open a form looking like the one below

On this form you can type the desired asset Name or Alias, select an Asset Icon, and enter an optional Asset Speed Limit. The changes you made will be saved once you click the

Save button.

StreetTrek™ Explorer comes with an internal graphics collection from which you can choose assets icons. Some of these are pre-loaded into the **Icon** drop down list box. You can add images to that list by clicking the **Import** button, which would produce a **Windows File Open Dialog** adjusted for selecting graphic files. The default path of this dialog points to the **StreetTrek™ Explorer** Graphics folder. This folder contains 3 graphics collections in their respective folders - **Vehicles**, **People**, **Landmarks**. **Vehicles** and **People** folders contain images suitable for assets. You can open either of them and select one or multiple files. Once selected, images stored in these files will be added to the **Icon** list box and you can select any of them as an Asset Icon. Your choice of assets graphics is not limited to **StreetTrek™ Explorer** graphics collection. The **File Open Dialog** produced when you click the **Import** button can be navigated to any folder on the PC where you can find and select an appropriate graphic. Graphics suited for assets should be reasonably small. Most built-in assets graphics are size 32x32 pixels with some minor variations. For use in Google Maps **transparent graphics** are preferable. The preferred graphic file format is GIF. PNG format is suitable for PCs with newer versions of **Internet Explorer** (**IE7**). Older **IE** versions do not handle well **PNG** transparency. **StreetTrek™ Explorer** does not run in Internet Explorer browser, however it uses underlying Windows OS features related to the installed version of Internet Explorer.

The above way of choosing Asset name and icon is intuitive and simple. However there is another way of editing assets that is more convenient when you need editing multiple assets at once, including those assets that are not shown on the map. If you click on the arrow portion of the **Assets** toolbar button you will pull down a sub-menu
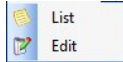
The second menu option **Edit** will open a spreadsheet like form listing **StreetTrek™ Explorer** assets with their icons, names, optional speed limits, and an ID that should uniquely identify each asset.
Mobile And Portable Assets

You can type directly into cells in **Unit** and **Speed** columns. Cells in the **Icon** column are pull-down list boxes with the same graphic selections you get when editing individual assets directly on the map. You can also open a Mobile or Portable Asset form described above and edit asset Icon and Name the same way you do it on the map. To do so select a wholre row, or multiple rows, and click the **Edit** toolbar button. If you select **multiple rows** and click **Edit**, the Name field in the 'Mobile and Portable Assets' will be grayed out. Icon selection and speed limit you choose will be applied to all selected assets.

Changes you make in this spreadsheet will take effect only after you save them by clicking the **Save** toolbar button.

The **Delete** toolbar button allows to delete one or multiple assets. This option is grayed out until at least one spreadsheet row is fully selected (highlighted). The assets are actually deleted only after you click the **Save** button. The deleted assets may later reappear if **StreetTrek™ Explorer** continues getting data for them.

The **Export** toolbar button allows to export assets data to an external file. You can use this export file to import assets settings into another copy of **StreetTrek™ Explorer** running on another machine. If you run several copies of **StreetTrek™ Explorer** monitoring the same fleet of assets, you could edit your assets on one machine, export the assets list to an XML file and import that file on other machines using the toolbar **Import** button.

The **ID** column is view only. It shows the internal ID used by **StreetTrek™ Explorer** to identify the asset. The numbers in this column are normally programmed into the GPS hardware. If you have access to this data it may be helpful in identifying your assets when choosing names or aliases for the first time. You can sort the **Mobile and Portable Assets** spreadsheet by **Name** or by **ID** by clicking on the respective column header. The arrow icon in the right header portion will indicate the sorting order, which can be toggled by clicking on the header.

The **Geofence** column is visible only if **Geofence** option is enabled and at least one **Geofence** defined.

Adding Landmarks

You can enhance your maps by adding labeled markers identifying objects of your business or interest. **StreetTrek™ Explorer** allows adding an unlimited number of such markers further referred to as **Landmarks**. **StreetTrek™ Explorer** offers two ways of adding a landmark.

You can add a Landmark through address lookup started when you click the main window toolbar button. Refer to the topic for details.

You can also drop a landmark icon directly onto the map by clicking the toolbar button and then moving the mouse cursor over the map to the area where you intend the landmark to be placed. The icon will be hovering over the map at the current cursor position until you 'stick' it to the map by clicking the left mouse button. If **Google Street View** is available for the area, a **Street View** balloon will pop-up next to the landmark The newly added landmark can be dragged across the map with the left mouse button held down, allowing you to adjust the exact landmark position. Note that when you move the mouse cursor over a **Landmark** icon you will be getting a balloon with the address range corresponding to the **Landmark** coordinates.
A **Landmark** without a label is temporary and will be discarded at the program exit. To make a **Landmark** permanent you have to assign a text that will be shown in the label above the **Landmark**. To do so move the mouse cursor over the newly added **Landmark** and click the right mouse button. This will produce a context menu
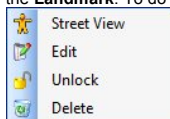
Select the **Edit** option. You will be presented with the **Landmark Edit Form** like the one shown below
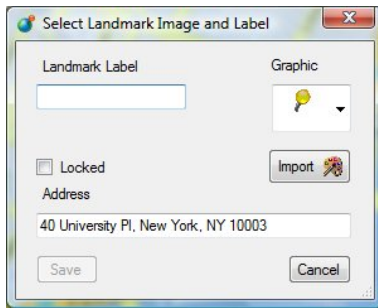
The first thing you should do in the **Landmark Edit Form** is to label the **Landmark** with a descriptive text. It can be the name of the business, the name or short description of the area, or whatever else you choose. The label can be up to 50 characters long. It makes sense keeping label text reasonably short. A label with a long text can obscure the map. The next step should be selecting a **Landmark Graphic**. Clicking the arrow on the **Graphic** list box would pull down the list of built-in **Landmark Graphics**. Making a selection in the pull-down list would assign the selected graphic as the **Landmark Icon**. **StreetTrek™ Explorer** landmarks graphics collection includes more images than shown in the pull-down list. To add additional graphics click the **Import** button. This will produce a **Windows File Open Dialog** adjusted for selecting graphic files. The default path for this dialog will point to the internal **StreetTrek™ Explorer** Graphics folder. This folder contains 3 graphics collections in their respective folders - Vehicles, People, Landmarks. Vehicles and People folders contain images suitable for assets. Images in the Landmarks folder are more suitable for **Landmarks**. You can open either of these folders and select one or multiple files. Once selected, images stored in these files will be added to the **Graphic** list box and you can select any of them for the **Landmark** Icon. Your choice of landmarks graphics is not limited to **StreetTrek™ Explorer** graphics collection. You can select an appropriate graphic from any folder on the PC. Graphics suited for **Landmarks** should be reasonably small. The built-in landmarks graphics are size **32x32 pixels**. For use on **Google Maps** transparent graphics are preferable. The preferred graphic file format is **GIF**. PNG graphic format is suitable for PC with newer versions of **Internet Explorer** (**IE7**). Older **IE** versions do not handle well PNG transparency. **StreetTrek™ Explorer** does not run in the Internet Explorer browser, however it uses the underlying Windows OS features dependent on the installed version of Internet Explorer.

Next, you may want to correct the address information. The information filled in when you first opened the Landmark Edit form is a result of reverse geocoding based on Landmark coordinates. This information may not be precise enough. If you know the exact address, type it into the **Address** field. The text you type will be shown in a balloon that will pop-up each time you move the mouse cursor over a landmark.

Before closing the **Landmark Edit** form you may lock the **Landmark** on it's current position by checking the **Lock** box. **Locked** landmark can't be dragged across the map. You can always **unlock** the landmark via context menu opened when you click the **Landmark** with the right mouse button. If the **Landmark** is locked, the context menu would offer an **Unlock** option. If the **Landmark** is not locked, there will be a **Lock** option.

Changes you made in the **Landmark Edit Form** will be saved only if you close the form by clicking the **Save** button. If instead you clicked the **Cancel** button or closed the form clicking the form's **x** button, any changes you made will be discarded.

You can delete a **Landmark** using a context menu opened by a right mouse click. Selecting the **Delete** menu option will delete the landmark from the map.

All named landmarks (those with text labels above them) will be listed in the main window toolbar **Landmarks** drop-down list box. Making a selection in the **Landmarks** list box will center the map at the landmark's coordinates. This provides means for quick map navigation - you can quickly jump to areas you marked. All named landmarks you added will be saved at the program exit and loaded at the next program run.

If you added more than a few landmarks you might want managing them at once, or export your landmarks for use in another copy of **StreetTrek™ Explorer**. Toolbar **Landmarks** button opens a spreadsheet-like form similar to the one shown below.

You can edit the **Landmark** name (label) or address by selecting a cell in the grid and typing into it. You can lock or unlock a **Landmark** by checking/unchecking the **Locked** cell. To change a **Landmark** icon click on the cell in the **Icon** column and select another image from the drop-down list. To add more images click the toolbar **Graphics** button and select additional images from the **StreetTrek™ Explorer** built-in graphics collection, or from any folder on your PC.

You can delete a landmark by selecting (highlighting) the corresponding row and clicking the 'Delete' **Delete** toolbar button. Any changes you made will become permanent only after you click the **Save** toolbar button.
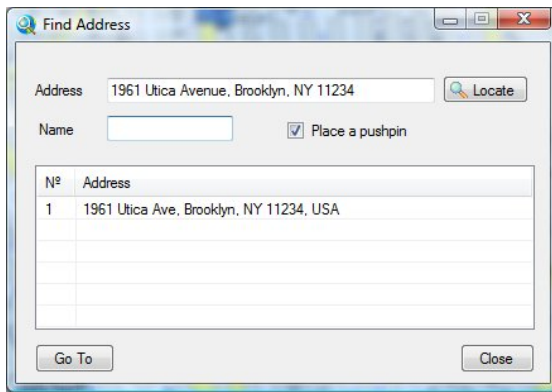
If you purchased several copies of **StreetTrek™ Explorer** you can save time and effort by adding landmarks on one machine, exporting them to an export file and importing landmarks from that file on other machines. Clicking the toolbar **Export** button would produce a **Windows File Save Dialog** prompting you to save the landmarks to an XML file. The default location for **Landmarks Export** files is in the Application User Data folder. Under Windows XP it would by in \Documents and Settings\Current User\Application Data\StreetTrek\ , under Windows Vista in \Users\Current User\AppData\Roaming\StreetTrek\ . You can choose another folder on any drive,including network drives and removable drives. The default file name is 'MyLandmarks.xml'. You can change the name of the file. Once you saved your landmarks, you can import them into any running copy of **StreetTrek™ Explorer**. To do so, open the **Edit Landmarks** form by clicking the **Landmarks** button on the main program window toolbar and in the **Edit Landmarks** form click the **Import** toolbar button. This will produce a Windows File Open Dialog which you navigate to the Landmarks Export file you earlier created. The default File Open Dialog path points to StreetTrek User Application Data folder. If the Landmarks Export file you selected contains landmarks data, the spreadsheet will be populated and you can finish the **Landmarks Import** by clicking the **Save** toolbar button. **Landmarks Export/Import** is quite similar to **Assets Export/Import** described in Changing Asset Name and Icon topic.

Address Lookup

StreetTrek™ Explorer offers address lookup through **Google Address Lookup** services. To locate an address first click the button on the main program window toolbar. You will be presented with a form like the one shown below.

On this form type the address you are looking for. The formatting of the address search string should confirm to the rules adopted in the country for which you perform the search. For example, the accepted address formatting for North America requires Street Number followed by Street Name, City Name, State and ZIP (postal code), Country, which defaults to USA if skipped. For other regions the Country may come first, followed by the City, Street and the Street number.

After typing the address search text click the **Locate** button. This will trigger an **Address Lookup Request** to **Google Server**. Search results, if any, will be listed in the table. Depending on the search text you typed there can be more than one result. For example, if instead of the exact street address shown on the above picture you would type 'Utica Avenue' the search would return 10 results listing first 10 USA cities that have 'Utica Avenue'.

At this point you can highlight a search result line (if more than one) and click the **Go To** button. This action would center the map on the coordinates corresponding to the address and if you kept the **Place a pushpin** box checked place a **Landmark** icon at that location. Since only named landmarks are saved upon program exit, you may enter the landmark name into the **Name** text box prior to clicking the **Go To** button. Naming the landmark here is optional, you can always edit a landmark name if you intend on keeping the landmark.
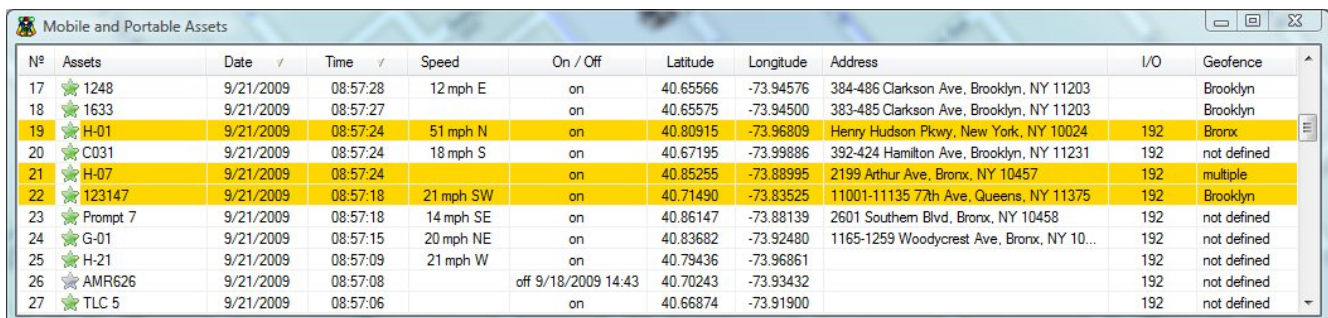
Locating Assets

Assets like vehicles, persons, pets, containers are plotted onto to the map once **StreetTrek™ Explorer** gets their coordinates. The full list of assets **StreetTrek™ Explorer** is currently tracking is in the toolbar drop-down combo box to the right of the **Assets** toolbar button

Not all items in the 'Assets' combo box may have valid coordinates. Some may represent assets that did report their presence, but not their whereabouts. If you select an asset with valid geographical coordinates the map will center around that asset.

If the **Assets** drop-down box is empty, check **StreetTrek™ Explorer** connection status - the 🚦 icon in the application window upper left corner indicates **connected** status, while the 🚦 or the 🚦 indicates that **StreetTrek™ Explorer** is not connected to Server or to local hardware.

To list only assets that have valid geographical coordinates click the **Assets** button. If there are any assets with valid coordinates **StreetTrek™ Explorer** will open a new form listing the assets in a table like the one shown below.


Nº	Assets	Date	Time	Speed	On / Off	Latitude	Longitude	Address	I/O	Geofence
17	1248	9/21/2009	08:57:28	12 mph E	on	40.65566	-73.94576	384-486 Clarkson Ave, Brooklyn, NY 11203		Brooklyn
18	1633	9/21/2009	08:57:27		on	40.65575	-73.94500	383-485 Clarkson Ave, Brooklyn, NY 11203		Brooklyn
19	H-01	9/21/2009	08:57:24	51 mph N	on	40.80915	-73.96809	Henry Hudson Pkwy, New York, NY 10024	192	Bronx
20	C031	9/21/2009	08:57:24	18 mph S	on	40.67195	-73.99886	392-424 Hamilton Ave, Brooklyn, NY 11231	192	not defined
21	H-07	9/21/2009	08:57:24		on	40.85255	-73.88995	2199 Arthur Ave, Bronx, NY 10457	192	multiple
22	123147	9/21/2009	08:57:18	21 mph SW	on	40.71490	-73.83525	11001-11135 77th Ave, Queens, NY 11375	192	Brooklyn
23	Prompt 7	9/21/2009	08:57:18	14 mph SE	on	40.86147	-73.88139	2601 Southern Blvd, Bronx, NY 10458	192	not defined
24	G-01	9/21/2009	08:57:15	20 mph NE	on	40.83682	-73.92480	1165-1259 Woodycrest Ave, Bronx, NY 10...	192	not defined
25	H-21	9/21/2009	08:57:09	21 mph W	on	40.79436	-73.96861		192	not defined
26	AMR626	9/21/2009	08:57:08		off 9/18/2009 14:43	40.70243	-73.93432		192	not defined
27	TLC 5	9/21/2009	08:57:06		on	40.66874	-73.91900		192	not defined

This window will be updated as data keeps coming in. The **Address** column cells will be initially blank and will be filled in with address information when the position of the asset is updated. Address information is requested from **Google Server** while the **Mobile and Portable Assets** form is open. The lines highlighted in yellow indicate geofence violation. Refer to the Geofencing section for instructions about setting up geofences.

By default items in the **Mobile and Portable Assets** table are sorted by date/time descending - the most recently updated item is always on top. The sorting order is indicated by arrow icons in sorted columns headers. You can toggle the sorting order by clicking on the column header. You can also have the **Assets List** sorted by the asset name. To do so click on the **Assets** column header.

The Assets List has a context menu
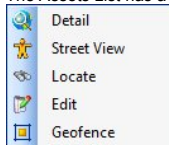
activated by right mouse button click. Assets List **context menu** provides access to options for the asset currently selected in list.

Detail menu option will open a Detail Map, which is a map that can be zoomed and navigated independently from the main map. Unlike the main map, the detailed map will keep track of it's dedicated asset and will automatically change map view port if the asset moves beyond map boundaries. Refer to the Detail Maps topic for more details.

Street View option opens Google Maps Street View for the selected asset, if Street View is available for the area.

Locate option will change the main map view port to place the selected asset in the map center. The same action is performed when you make a selection from the toolbar.

Assets drop-down box. The only difference is that locating from the **Mobile and Portable Assets** is guaranteed to succeed because all assets on that list have valid coordinates.

Edit option will open Asset Edit form where you can change the asset name (alias), the asset icon and the asset individual speed limit.

Geofence option opens a Geofence Select form where the user can select geofences in effect for the asset. **Geofence** option is visible only if geofences have been defined by the user.

Options provided via the Asset List **context menu** are also available directly on the main map. A right mouse button click on any asset icon on the main map will produce a context menu with similar options. Refer to the Geofencing section for details about setting up geofences.

To close the Assets List form click the **x** button on the form or click the Assets [icon] ▼ toolbar button once again. Once the **Mobile and Portable Assets** window is closed **StreetTrek™ Explorer** will stop sending automatic request for address decoding for incoming data.

Traffic Overlay

Google Maps allows adding current traffic information. The **Traffic Conditions** layer is hidden be default, which is indicated by the dimmed appearance of the [icon] toolbar button. Clicking the [icon] button will show the **Traffic Layer** and the appearance of the traffic light toolbar button will change to [icon]. To hide the **Traffic Overlay** click the [icon] toolbar button again. Traffic Information is provided by Google and is currently provided for more than 30 major USA cities. The traffic conditions are color-coded with Green color representing fast moving traffic, Yellow, Red, Black indicate worsening traffic conditions. Various icons represent conditions like construction, accidents, lane closure etc. Clicking a traffic condition icon on the map should produce a balloon describing the condition, including date and time it may be in effect.
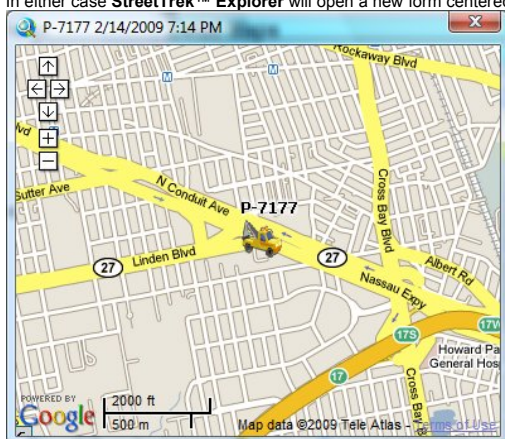
Detail Maps

When tracking fleets of assets you may want keeping an overview of your fleet on the main map, and have the ability to zoom onto an individual asset(s) without disturbing the main picture. **StreetTrek™ Explorer** allows you to open multiple independently zoomed maps dedicated to individual assets. You can open a Detail Map by first locating the asset on the main map, then right-click it with the mouse and select 'Detail' from the context menu


Alternatively, you could open the Assets List by clicking the Assets [icon] ▼ toolbar button, then locate the asset row, click it with the right mouse button, and select **Detail** from the context menu.
In either case **StreetTrek™ Explorer** will open a new form centered at the asset coordinates.

You can adjust the size of this form by dragging it's borders and move the form to the desired screen position. A secondary monitor would be an ideal place for detail maps. The zoom level is adjusted via **small zoom control** in the upper left part of the map. The detail map can be switched from **Map View** (the default) to **Satellite** or **Hybrid View**. Unlike the main map, the detail map does not have a **Map Type** control on the map itself - it would take too much space on a smaller window. Instead **map type** is selected via context menu activated by a right mouse click on the map.
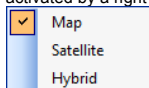

If the next update would bring the asset icon outside the map boundaries, the map will be automatically centered at the new coordinates. Asset date/time stamp, speed and direction are shown in the Detail Map Window caption. Speed and direction are displayed only for moving assets. It the asset remained stationary only date/time stamp is updated. You can open as many detail maps as you can reasonably fit onto your displays.

Geofencing

StreetTrek™ Explorer implements most common Geofencing - visual notification of an asset within a certain predefined area, or outside a certain predefined area. Geofencing is not enabled by default. To make **Geofencing** controls visible check the **Geofencing** check box in StreetTrek Options. **StreetTrek™** allows setting up to 32 Geofences.

To set up a new Geofence zoom the map to the area and move the mouse cursor over the [icon] drop-down button on the toolbar. This should produce a drop-down menu listing existing geofences. Select the **Add Geofence** [icon] option and move the mouse cursor to the position from which you will draw a polygon representing the new **Geofence**. Note the shape of the cursor becoming a **cross-hair.** Click on the map to construct a **Geofence** polygon. Each click will create a small rectangle representing a polygon vertex. All added vertexes will be connected by a poly line. The maximum number of geofence polygon vertexes should not exceed 100.
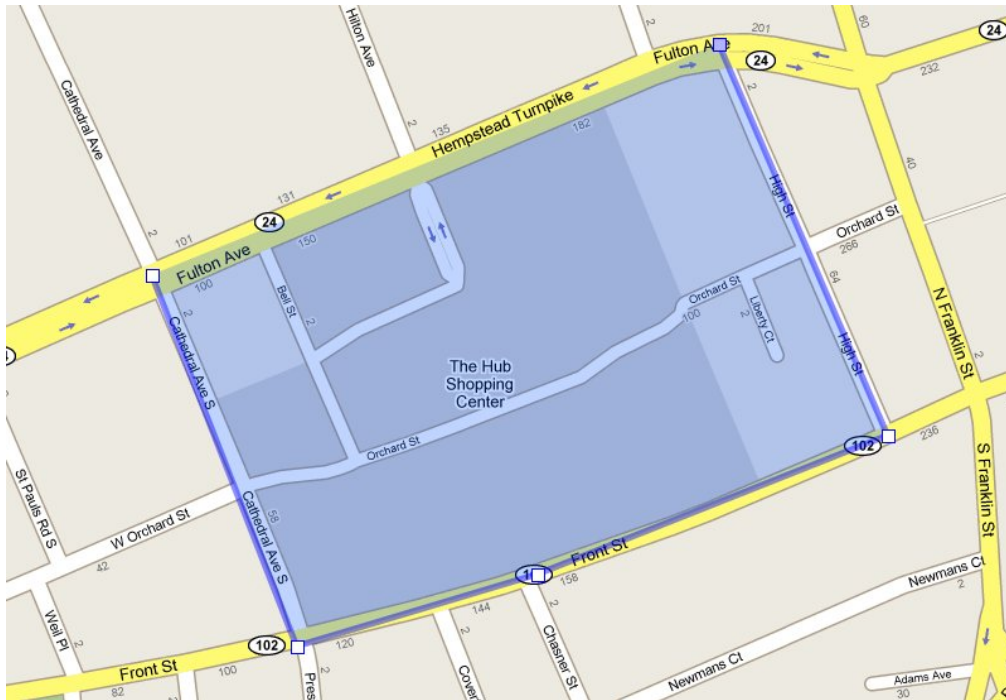
Finish editing by clicking on the starting vertex of the polygon. Once you do so you will be presented with a pop-up form where you can give the new Geofence a meaningful name, select shading color and opacity. You can make the geofence visible on the map by leaving the **Visible** check box checked. You should also specify the Geofence violation condition - Inside (an asset got into the area) or Outside (an asset left the area). You can specify whether the **Geofence** applies to all assets in the fleet.


Clicking the **Save** button will add the new Geofence to the **StreetTrek™ Explorer** geofences collection. The new **Geofence** will be added to the 👣 toolbar button drop-down menu. Clicking **Cancel** on the above **Geofence** form will remove the polygon from the map and the geofence collection will remain unchanged.

Each defined **Geofence** is represented by the respective menu option under the 👣 toolbar drop-down button. Each of these options has a sub-menu allowing the user to modify, hide, or delete the geofence.
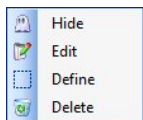
The **Edit** option will open the above shown **Geofence** form allowing to rename the **Geofence** and change the shading color and opacity. The **Define** option will activate the polygon vertexes that can pulled across the map. To finish redrawing click on any polygon vertex with left mouse button.
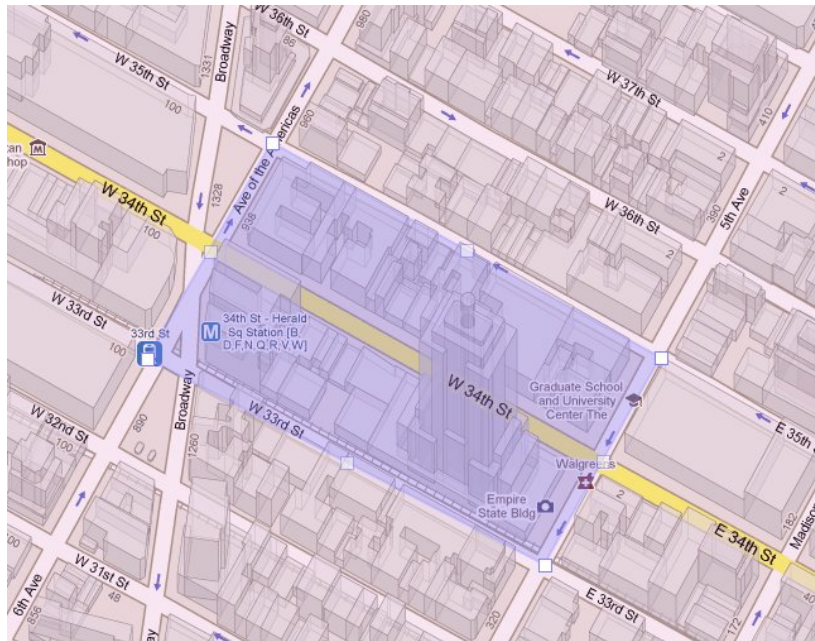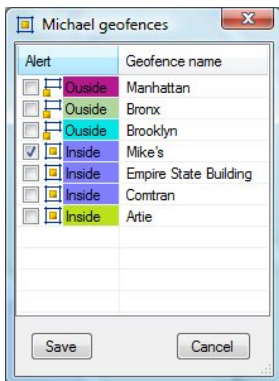
StreetTrek™ Explorer geofences can be saved to a file in XML format via **Export** geofence submenu option. If you have multiple **StreetTrek™ Explorer** installations, you can define geofences on one machine, export geofences to a file, copy the file to a folder of your choice on other machines, and **import** geofences via **Import** geofence submenu option.

Each mobile or portable asset can be assigned a combination of defined geofences. This can be done in number of ways. The most intuitive is to move the mouse cursor over the asset on the map and click it with the right mouse button to activate a context menu.

and select the **Geofence** option. This will produce a form listing defined geofences.


Check which geofences should be in effect for the asset and click the save button. The same form can be called from the Mobile and Portable Assets.

Reports   Previous Top Next

StreetTrek™ Explorer allows the program user to look up past whereabouts of any asset **StreetTrek™ Explorer** was tracking and generate a **Visual** (map) and **Tabular** reports. The **Report** feature is accessed by clicking the 🔲 toolbar button which would produce a form like the one shown below.
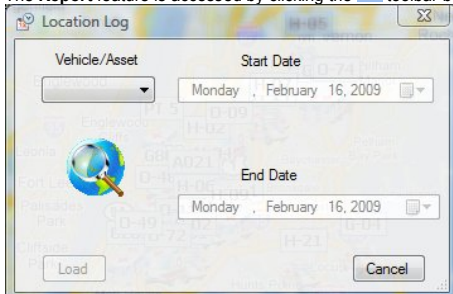

Before a report can be generated the user needs selecting the **Asset** and the **Date Range**. The **Asset** selection is done in the **Vehicle/Asset** drop-down box, which is pulled down by clicking on the drop-down box arrow. In response **StreetTrek™ Explorer** will either search it's database (if data is provided by the locally attached hardware) or send a request

for data to the **StretTrek Server**. If there is recorded data for the selected **Asset**, the two **Date Picker** controls will be enabled and filled with the most recent date on record for that **Asset**. The **Load** button should become enabled

If you click the **Load** button **StreetTrek™ Explorer** will generate a **Visual Report** for the dates shown in the **Date Picker** controls. If both controls show the same date the report will cover the 24 hours period from 00:00:00 AM to 11:59:59 PM or 00:00:00 - 23:59:00. The **Date Picker** controls allow you selecting another date or a **Date Range**.
Once the **Report Date** or **Date Range** are selected, you can load the report by clicking the **Load** button. The screenshot below shows an actual visual report generated for the **Asset** and **Date** selected on the previous form.
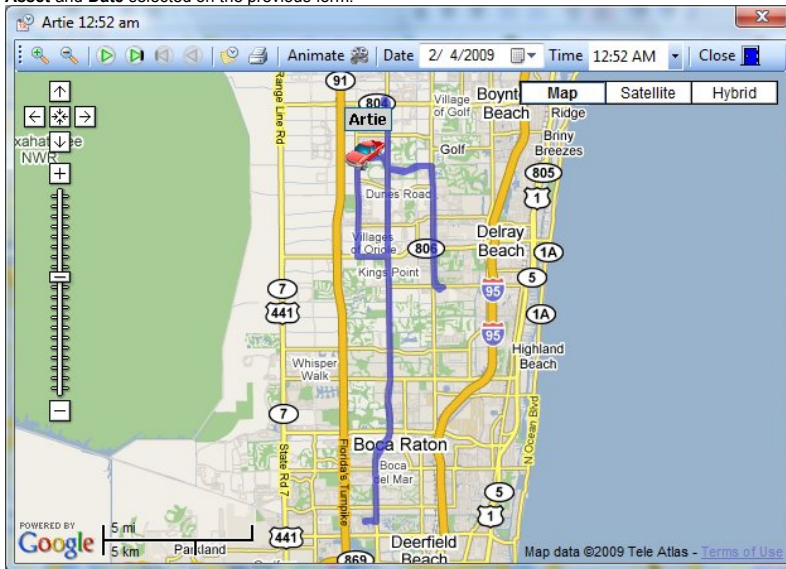

The **Visual Report** shows the map of the area the **Asset,** in this case a **vehicle**, was in at the date selected. The blue line marks the route the **vehicle** was travelling. This form can be navigated the same way as the main map. You can zoom into any point along the route, switch view from **Map** to **Satellite** or **Hybrid**. The toolbar controls on the top of the form allow 'moving' the vehicle along the route. The time and speed will be shown in the window caption. The vehicle position on the above picture corresponds to the first data packet generated early in the morning. The **Green Arrow** toolbar button allows advancing the to the next record, which will be reflected by changed time in the toolbar **Time** drop-down list box. The position of the vehicle on the map, if changed, will be updated as well. You can jump directly to a time of your choice by making a selection in the **Time** drop-down list box. Clicking on the route with the left mouse button would move the vehicle icon to the route point nearest to the point clicked and the time and speed shown in the form caption, as well as the time shown in the drop-down list box will be updated.
The gray background of the **Label** with the **Vehicle Name** on the above screenshot indicates that ignition was off, as you would expect considering the early hour. The next screen shows the vehicle position later that morning.
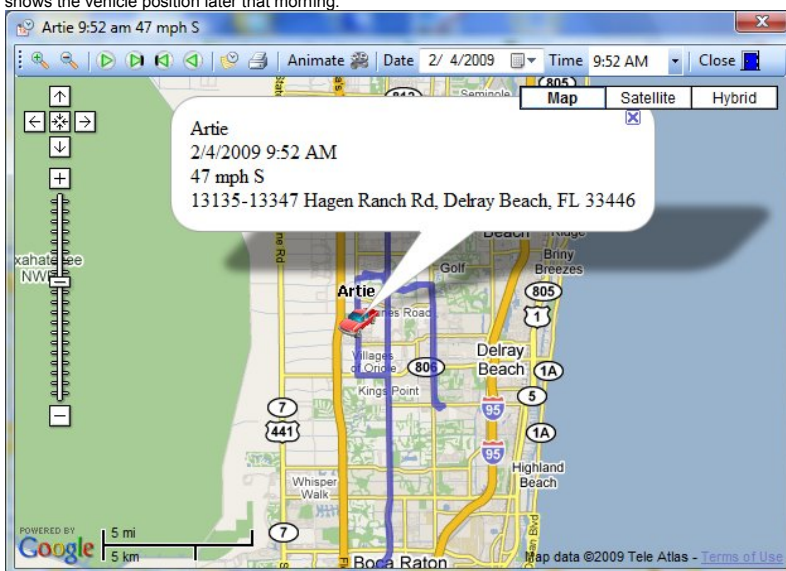
The information balloon shown on the map was produced by hovering the mouse cursor over the vehicle icon.

The next screen was produced by clicking the vehicle icon with the left mouse button.
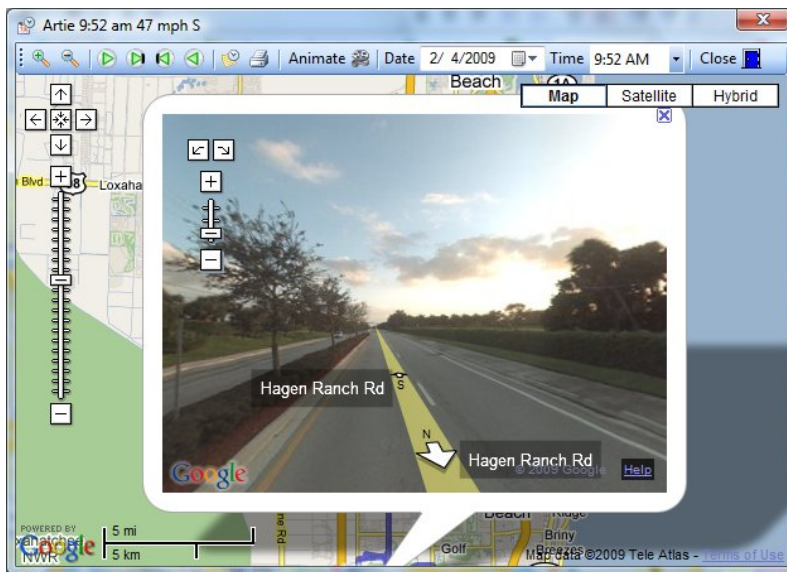
This map shows a ground level Street View balloon. Note that Street View panorama angle matches the vehicle's heading.

Instead of repeatedly clicking the green **Forward** button, you can click the **Animate** button and the vehicle would advance forward automatically.

You can load the **Asset Travel History** for another date without leaving the **Visual Report** form. Selecting another date in the toolbar **Date Picker** will load a report for that date if such data exists.

To generate a report in a **Tabular** form click on the 🕒 toolbar button. This will produce a **Tabular Report** form like the one below.

Nº	Status	Date / Time	Speed	Latitude	Longitude	Address
10	⭐ Off	02/04/09 08:53	0	26.50375	-80.15981	11528-11536 Lawton Rd, Boynton Beach, FL 33437
11	⭐ normal	02/04/09 09:47	0	26.50370	-80.15977	11528-11536 Lawton Rd, Boynton Beach, FL 33437
12	⭐ normal	02/04/09 09:48	21	26.50307	-80.15936	11568-11576 Lawton Rd, Boynton Beach, FL 33437
13	⭐ normal	02/04/09 09:49	8	26.50183	-80.15916	Wedgewood Gm, Boynton Beach, FL 33437
14	⭐ normal	02/04/09 09:50	0	26.50100	-80.16376	7500 San Pedro St, Boynton Beach, FL 33437
15	⭐ normal	02/04/09 09:51	41	26.49078	-80.16402	12483 Hagen Ranch Rd, Boynton Beach, FL 33437
16	⭐ normal	02/04/09 09:52	47	26.47957	-80.16329	13135-13347 Hagen Ranch Rd, Delray Beach, FL ...
17	⭐ normal	02/04/09 09:53	49	26.46823	-80.16351	13885-14013 Hagen Ranch Rd, Delray Beach, FL ...
18	⭐ normal	02/04/09 09:54	48	26.45637	-80.16356	14653-14837 Hagen Ranch Rd, Delray Beach, FL ...
19	⭐ Off	02/04/09 09:54	1	26.45416	-80.16386	7501-7533 SR-806, Delray Beach, FL 33446
20	⭐ Off	02/04/09 09:55	0	26.45405	-80.16390	7501-7533 SR-806, Delray Beach, FL 33446
21	⭐ normal	02/04/09 10:02	0	26.45416	-80.16386	7501-7533 SR-806, Delray Beach, FL 33446
22	⭐ normal	02/04/09 10:03	11	26.45430	-80.16348	14921-14999 Hagen Ranch Rd, Delray Beach, FL ...
23	⭐ normal	02/04/09 10:03	1	26.45372	-80.16161	7300-7498 SR-806, Delray Beach, FL 33446
24	⭐ normal	02/04/09 10:04	55	26.45375	-80.15448	6767-6871 SR-806, Delray Beach, FL 33446
25	⭐ normal	02/04/09 10:05	0	26.45370	-80.14797	6500-6598 SR-806, Delray Beach, FL 33446
26	⭐ normal	02/04/09 10:06	23	26.45238	-80.14709	15021-15097 Carter Rd, Delray Beach, FL 33446
27	⭐ normal	02/04/09 10:07	2	26.44300	-80.14679	15640-15758 Carter Rd, Delray Beach, FL 33484

Note that toolbar **Export** and **Print** buttons may be initially grayed out and most cells in the address column may be initially blank. Address cells will be filled in at the rate of approximately 2 lines per second. Address decoding is provided by **Google Server** that limits the number of geocoding request sent over a short period of time. Once all addresses are decoded the Export and Print toolbar buttons will be enabled.

You can export the report to a **comma-separated CSV** file or an **XML** file. **StreetTrek™ Explorer** can load reports it generates. You can open a report file in either **CSV** or **XML** format from the main program window toolbar via 🕒 button. The imported report will produce the same map as on the above screenshot.

Street View

Google Street View is a feature of **Google Maps** and **Google Earth** that provides 360° horizontal and 290° vertical panoramic street level views and allows users to view parts of some regions of the world at ground level. **StreetTrek™ Explorer** offers **Google Street View** for assets and landmarks either in a balloon opened when the user clicks the icon with the left mouse button, or in a separate form opened via context menu activated by the right mouse button click. A **Street View** form opened for an asset will stay with the asset and will be updated each time **StreetTrek™ Explorer** gets new data for that asset.

Currently **Google Street View** is available mainly for major USA and Canada population centers and major roads. It is now offered for some European capitals, major cities in Australia and Japan. To find out if **Google Street View** is available in areas of your interest click the 🚶 toolbar button. Roads and Streets covered by **Google Street View** will be highlighted with blue outlines. To turn the blue outlines off click the 🚶 again, or click the right mouse button anywhere on the map (but not on an icon). While **Google Street View** blue outline is ON you should notice a camera icon hovering over the map at the current cursor position. Clicking the left mouse on an outlined road or street will produce a **Street View** form with **Google Street View** of the area. The size of this form can be adjusted by dragging the form's borders.

Google Street View is not a **StreetTrek™ Explorer** feature. It is a service offered by **Google Maps.** Since **StreetTrek™ Explorer** uses Google Maps it offers **Google Street View** among other services provided by **Google Maps.**

You can learn more about **Google Street View** from Internet resources like Wikipedia.

Raster Maps

StreetTrek™ Explorer can import **Raster Maps**. You can use this option if Google Maps service is not available (no or poor Internet connection). A **Raster Map** is basically an image with known corner coordinates. **StreetTrek™ Explorer** requires raster image file to be accompanied by a file in Google KML format. The KML file should contain the full path to the image file and geographic coordinates in decimal degrees in accordance with **Google™ KML File Format Specification. StreetTrek™ Explorer** has one built-in raster map - **World**. You can import your own raster maps. To do so click the left most toolbar button. The appearance of the left most toolbar button depends on the current map mode. If **StreetTrek™ Explorer** currently shows Google Map the left most toolbar button will be look like on the picture below:

If **StreetTrek™ Explorer** loaded a raster map, then the left most toolbar button will look like


Regardless of the exact appearance, a click on the left most toolbar button would open a **Windows File Open Dialog** where you can navigate to the raster map file you intend to open. The start path of the File Open Dialog is the path to the last opened raster map. If you never added raster maps the path would point to the **StreetTrek™ Explorer** program folder and World.kml will be the only file available. This file is an internal file visible only to **StreetTrek™ Explorer** application. It is generally not recommended adding files to the application program folder. You can store your raster map files in any other folder of your choice, including Application User Data folder in Documents and Settings under XP or Users under Windows Vista, or you could store your raster maps in My Documents folder. Once you copied your raster maps into a folder of your choice you can navigate to that folder in the **File Open Dialog** and open the raster map. The raster map will be shown in the main program window with assets that are within raster map boundaries plotted. The raster map file name will become a menu option in the sub-menu pulled down when you click on the arrow portion of the left most toolbar button. Next time you want to select the same map you don't have to go through the File Open Dialog, the map will be available as a menu choice. The raster map shown at **StreetTrek™ Explorer** exit will be automatically loaded at the next program run.

Raster Maps allow adding **Landmarks**. The procedure of adding a **Landmark** to the a **Raster Map** is similar to adding landmarks to **Google Maps** described in Adding Landmarks topic. Raster Map landmarks are tied to the raster map they reside on and added for each **Raster Map** separately.

StreetTrek™ Options

Various **StreetTrek™ Explorer** settings can be set in the **StreetTrek Options** form opened from the main program window via Settings toolbar button.
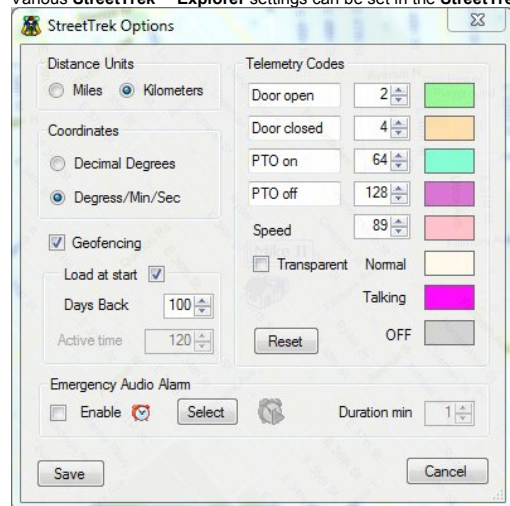
The '**Distance Units**' radio buttons allows choosing between Miles and Kilometers for distance and speed.

The two radio buttons within the '**Coordinates**' group box allow selecting between '**Decimal degrees**' and '**Degrees, minutes, seconds**' coordinate formats for reports and tabular data.

The **Geofencing** check box determines whether the **Geofencing** is enabled. The default is not checked. Checking this check box will add a **Geofence** drop-down button to the **StreetTrek™ Explorer** toolbar, allowing the user to define geofences. Refer to the Geofencing topic for details.

Active time option is applicable only to Raster Maps - when enabled it allows gradually phasing out assets after selected inactivity period. This option is not available for Google Maps.

Assets Load Options - **Load at start** and related to it **Days Back** setting determine whether assets will be loaded from the local database or from the StreetTrek Server database at the program start. If you check **Load at start**, then the map will be populated with the latest known positions of assets but no older than the **Days Back** number of days. If the **Load at start** is left unchecked **StreetTrek™ Explorer** will start with an empty map and assets icons will be added once the assets report their positions. The default is **Load at start** checked and **Days Back** set to 2 days.

The controls in the **Telemetry Codes** group box allow visualizing the current asset **telemetry**, **on/off** and **speeding** conditions by assigning to each of these conditions a distinct **Asset Label Background** color. **StreetTrek™ Explorer** allows **color-coding** of up to 4 different **telemetry** values. Telemetry values can be in the range between 2 and 255 and are hardware-specific. You can select up to 4 telemetry values in the numeric up/down controls and provide each of them with a name that describes the telemetry condition. The default telemetry names are I/O1, I/O2, I/O3, I/O4. Since these names will be shown in assets balloons, in the I/O column of the Mobile and Portable Assets list, and in reports, it makes sense choosing a more descriptive text.

The color shown in the colored rectangle next will be the background color of the asset label when the telemetry data matches the value selected in the numeric up/down control. You can change these colors by clicking on the rectangle with the left mouse button. This would produce a **Windows Color Dialog** where you can choose another color.

Besides telemetry values, you can choose the **Global Speed Limit** and the color corresponding to **Speeding** condition. Keep in mind that **StreetTrek™ Explorer Speeding** is not related to any local or national traffic laws. The **Global Speed Limit** does not necessarily apply to all assets. **Global speed Limit** is overridden by **Individual Asset Speed Limit**. When a new asset is added to the fleet, it's speed limit is set to the **Global Speed Limit** entered here. If you later change the individual speed limit for that asset, the speeding condition for it will be derived from the individual speed limit.

Normal condition specifies the state when the asset is on, not speeding, and there are no telemetry values matching values in one of the four numeric up/down telemetry controls. The default **Normal** color is white and can be set to transparent by checking the **Transparent** check box. **Transparent** means that the assets labels will be painted without background.

Talking condition corresponds to the activated **Push To Talk** (**PTT**) switch. **PTT** is not supported by all **GPS hardware**. If the GPS hardware, for example a two way radio, does support **PTT**, the background color of the label will change to the color selected for **Talking** condition when the radio operator pressed microphone **PTT** button. The program user in that case could not just hear the audio from the receiving radio speaker, but also see on the map which unit is talking and where it is.

OFF condition is hardware-specific. It can correspond to the vehicle ignition switch state. Some GPS hardware is capable of sending a turn off code before shutting down. Whichever the case, **StreetTrek™ Explorer** provides color-coding for this condition. The default **OFF** color is gray.

Options in the **Emergency Audio Alarm** group box allow selecting a sound clip to be played through the PC speakers upon receiving an **Emergency Transmission**. **Emergency Audio Alarm** is optional and activated only if the user checks the **Enable** box. The default alarm audio clip is an internal file visible only to the application. You can test the sound by clicking the **Alarm Clock** button with the green arrow. To stop the sound click the same button again. You can select an audio clip of your own choice. To do so click the **Select** button and navigate to the sound file on your PC. The duration of the audio alarm without user intervention is set in the **Duration** numeric up/down control. When **StreetTrek™ Explorer** receives an **Emergency Transmission** the corresponding asset icon will flash it's label between red and white. If **Emergency Audio Alarm** is currently played, the user can stop it by clicking on the icon of the asset with flashing label. The **sound alarm** will also stop if the sending unit activated the **PTT** switch. In absence of these actions the alarm will sound until the **duration** set in the StreetTrek Options runs out.

Changes made in the **StreetTrek Options** form will be saved if the user closes the form by clicking the **Save** button. If the user closed by clicking the **Cancel** button or the form '**x**'

button, changes, if any, will be discarded.

Firewalls

StreetTrek™ Explorer is designed to run behind firewalls. Since **StreetTrek™ Explorer** does not accept incoming connections it should work transparently through hardware firewalls. Software Firewalls may produce a false security warning like the one shown below


Click **Unblock** if you encounter such warning. This should put **StreetTrek™ Explorer** onto the list of exceptions so you stop getting this warning in the future.

Adding Server Connections

The procedure of creating the first connection to StreetTrek Server is already described in the Getting Started topic. Once you created your first Server Connection the name of the connection will be added to the sub-menu pulled down by clicking on the arrow portion of the **Network** toolbar button on the main program window.
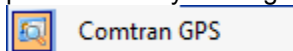
The highlighted icon on the left indicates active connection. If you click this menu option it will change appearance to
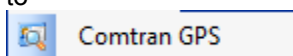

indicating the connection is closed. If you select this option again connection to the server will be restored and the appearance of the menu option will reflect the connected status as shown on the first picture.

This user interface does not add much functionality if you keep just one server connection. The connected status is already indicated by the application **Traffic Light** icon in the upper left corner. However, if you have more than one connection you can determine which connection is in use by pulling the sub-menu and looking up which option is checked.

StreetTrek™ Explorer can connect to multiple servers. If you click the **Network** toolbar button after the first Server connection was already added the screen output will be different from that you had when adding the first connection. This time you will get a form listing existing connections
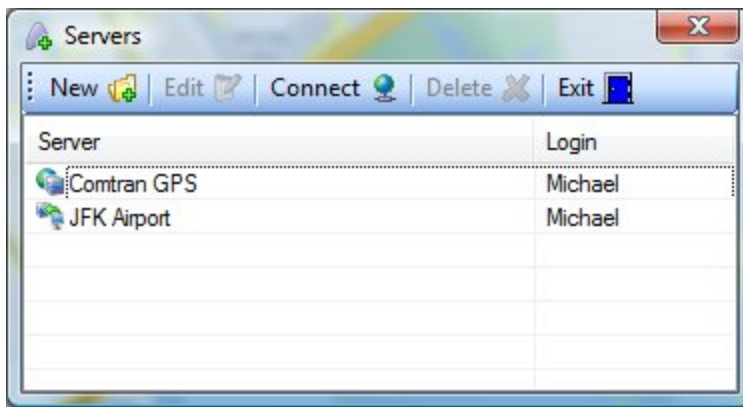
The toolbar buttons on the top of the form allow adding a **New** Connection, **Edit** an existing connection, or **Delete** a connection. Clicking the **New** toolbar button will produce a **Network Connection Setup** form

where you enter Server IP Address, Port, User Name and Password. The port number shown here is not necessarily the one you will be entering. It should match the port number used by StreetTrek Server. Make sure to provide a meaningful Connection Name because the new connection name will be added to the Connections sub-menu.

MOTOTRBO™

StreetTrek™ Explorer provides native support for **Motorola MOTOTRBO™** GPS-capable radios. If the PC is running **StreetTrek™ Explorer** has **MOTOTRBO™** drivers installed, **StreetTrek™ Explorer** will automatically configure itself either at the program start, if the base radio is on and connected to the PC, or when the base radio is turned on while **StreetTrek™ Explorer** is already running. The change will be reflected in the **StreetTrek™ Explorer** toolbar. If **MOTOTRBO™** base is not present the toolbar should look like on the picture below

Note the **Network** button with the 🖳 icon indicating that data will be received from the **StreetTrek Server** over a **Local Network** or **Internet** connection. Once you turn on or plug in a **MOTOTRBO™** base the **Network** toolbar button will change it's caption to **Local** and icon to 🖐.

indicating that data will be received from the **MOTOTRBO™** base radio. Clicking on the toolbar **Local** 🖐 button should produce a **MOTOTRBO™** Settings Form

The only **MOTOTRBO™** parameter you may need to adjust is the **Update Interval**.
   GPS Update Interval in seconds is the desired time interval between GPS updates. **MOTOTRBO™** Documentation recommends 4 minutes (240 seconds) between updates and cautions against lowering them below 60 seconds. StreetTrek **MOTOTRBO™** Settings Form allows entering shorter (down to 20 seconds) update intervals for testing purpose. Keep in mind that shorter update intervals translate into more radio traffic and less radio battery life.
The **GPS Update Interval** entered here will be applied to **MOTOTRBO™** radios registering with **StreetTrek™** for the **first time**. **StreetTrek™** stores the **GPS Update Interval** for each radio, and a **GPS Update Interval** of a particular radio can be changed independently of the global **GPS Update Interval** entered here. If you need changing **GPS Update Interval** for each previously registered radio, check the **Apply to All** box.

It is possible, but not recommended, changing other parameters in the Network Settings group. For detailed information about **MOTOTRBO™** programming for Location Services contact your **Motorola Dealer**.

Keep in mind that **StreetTrek™ Explorer** will automatically configure itself for **MOTOTRBO™** only if it is not currently connected to **StreetTrek Server,** the **MOTOTRBO™** base is properly programmed and **MOTOTRBO™** drivers are installed. If you intend on switching between getting data from **StreetTrek Server** and a **MOTOTRBO™** base, terminate the connection to the **StreetTrek Server** before turning on the **MOTOTRBO™** base radio.

Note:
MOTOTRBO™ is a trademark of Motorola Inc.

Troubleshooting

Getting **GPS data** from **MOTOTRBO™** hardware may require some troubleshooting. Due to the constraints of **MOTOTRBO™ Location Services Architecture** a **GPS-capable** radio will send **GPS** only after getting an **Over the Air** instruction issued by a **GPS-tracking** application like **StreetTrek™ Explorer**. There is a fair chance that when you run **StreetTrek™ Explorer** with **MOTOTRBO™** for the first time you will be looking at a map with no Asset icons. An Asset icon is plotted onto the map only if **StreetTrek™ Explorer** received GPS data with valid coordinates. There could be various causes for an Asset icon not to be shown on the map. For example, a radio might be programmed incorrectly, or not acquired a GPS lock. To assist the system operator with troubleshooting **StreetTrek™ Explorer** offers a Diagnostics **View Data** option under the **Local** 🖐 toolbar button. Moving the mouse cursor over the **Local** 🖐 toolbar button should pull down a submenu:
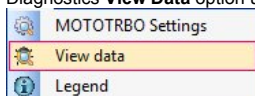
Selecting **View Data** would produce a **Radio Data** form showing data received from the base radio(s).

Alias	ID	Date	Time	Base IP	Spd	Dir	Longitude	Latitude	Accuracy	I/O	RSSI
⭐ Mike	7	9/28/2009	18:29:02	192.168.11.2							-63.36
⭐ Michael	1501	9/28/2009	18:28:06	192.168.12.2							-65.50
⭐ Mike	7	9/28/2009	18:28:02	192.168.11.2							-63.51
🔵 Mike	7	9/28/2009	18:27:24	192.168.11.2							-63.64
⭐ Mike	7	9/28/2009	18:27:17	192.168.12.2							-66.06
⭐ Michael	1501	9/28/2009	18:27:06	192.168.12.2							-60.83
🔵 Michael	1501	9/28/2009	18:27:03	192.168.12.2							-62.96
⭐ Michael	1501	9/28/2009	18:26:57	192.168.11.2							-61.11
⭐ Mike	7	9/28/2009	18:26:42	192.168.11.2							-66.10
⭐ Michael	1501	9/28/2009	18:26:39	192.168.11.2							-64.69
⭐ Michael	1501	9/28/2009	18:26:07	192.168.12.2	0	16	-73.93299	40.61336	2		-65.79
⭐ Mike	7	9/28/2009	18:25:56	192.168.11.2	0	36	-73.93294	40.61292	7		-60.15
⭐ Michael	1501	9/28/2009	18:25:07	192.168.12.2	0	328	-73.93301	40.61334	2		-60.73
⭐ Mike	7	9/28/2009	18:24:56	192.168.11.2	0	148	-73.93289	40.61287	6		-63.84
⭐ Michael	1501	9/28/2009	18:24:07	192.168.12.2	0	0	-73.93306	40.61329	2		-65.81

Each row in the above table represents a decoded data message. The message type is indicated by an icon in the left most cell. Note that only data messages represented by a ⭐ **Green Star** icon will translate into an Asset icon plotted onto the map. Messages represented by a ⭐ **Yellow Star** icon have no GPS coordinates and will not be reflected on the map. Rows starting with a **Blue Star** 🔵 icon represent **ARS** messages. **ARS (Automatic Registration Service)** messages carry no GPS information and are not reflected on the map, however **ARS** is an essential component of **MOTOTRBO™ Data Services.** Rows starting with an 🔵 icon represent a response to a **Periodic Location Update Request.** In essence, this message indicates that a radio received an application (**StreetTrek™ Explorer**) request for a **Periodic Location Update** and will start sending GPS at the rate specified. To find out the meaning of each icon move the mouse cursor over the icon and read the tooltip that should appear shortly. You can also open a form showing all possible data icons by selecting the toolbar **Legend** option.
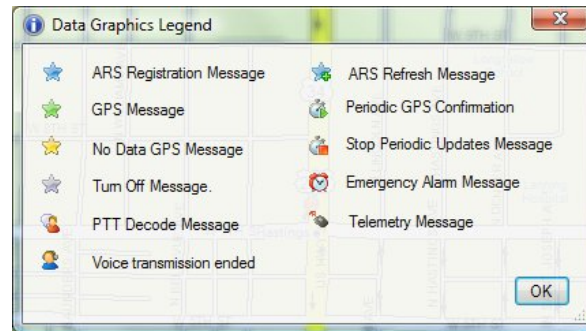
Information shown on the Radio Data form can be helpful to a person with some knowledge or understanding of **MOTOTRBO™ Data Services.** Regular program users may never use this option.

Note:
MOTOTRBO™ is a registered trademark of Motorola, Inc.